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10/614,087	07/08/2003	Samuel David Conzone	SGT 32 C1	8304

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EXAMINER
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ROSSI, JESSICA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/614,087

Applicant(s)

CONZONE ET AL.

Examiner

Jessica L. Rossi

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/11/05, Amendment.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 31-39 and 47 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 31-39 and 47 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendment dated 10/11/05. Claims 1-30 and 40-46 were cancelled. Claim 47 was added.
2. The rejection of claim 31 under 35 USC 103(a) as being unpatentable over von Bonin et al. '230 in view of JP '834, as set forth in paragraph 9 of the previous action, has been withdrawn in light of Applicant argument that one would not be motivated to use phosphate glass for the laminate of von Bonin based on the teaching of JP '834; the examiner points out that the laminated glass articles of von Bonin and JP '834 are of a completely different nature.
3. The rejection of claim 31 under 35 USC 103(a) as being unpatentable over von Sugahara et al. '616 in view of JP '834, as set forth in paragraph 11 of the previous action, has been withdrawn in light of Applicant argument that one would not be motivated to use phosphate glass for the laminate of Sugahara based on the teaching of JP '834.
4. The rejection of claim 31 under 35 USC 103(a) as being unpatentable over von Sugahara et al. in view of von Bonin et al. and JP '834, as set forth in paragraph 12 of the previous action, has been withdrawn in light of Applicant argument that one would not be motivated to use phosphate glass for the laminate of Sugahara based on the teaching of JP '834.

### ***Claim Objections***

5. Claim 31 is objected to because of the following informalities: "composts" should be --composite-- in line 1. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 1733

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 47 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The present specification does not have support for the solution **consisting essentially of** a dissolved phosphorous compound.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 31-39 and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 31, lines 10-11 state that the "composite cures" but it is unclear as to how this is possible when the composite includes the glass surfaces, which obviously are not cured during the retaining step. Applicant is asked to clarify. It is suggested to amend the claim to state --while the solution cures-- in lines 10-11. Therefore, it is suggested to amend claim 33 to also state -- while the solution cures--.

***Claim Rejections - 35 USC § 103***

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 1733

11. Claims 31-32, 34-39 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over von Bonin et al. (US 5543230, of record) in view of Lewis (US 4026714), or alternatively, Lewis in view of von Bonin et al.

With respect to claim 31, von Bonin is directed to a process for making a phosphate-based glass composite (abstract). The reference teaches providing a first glass having a first surface and a second glass having a second surface (column 3, lines 14-25), processing the first and second surfaces to provide a bonding surface, providing an adhesive in the form of an aqueous solution containing a phosphorous compound (column 1, lines 36-43), applying the solution to at least one of the first and second surfaces (column 3, lines 20-25; column 4, lines 48-51), placing the surfaces into contact with each other (column 3, lines 36-45; column 4, lines 48-51), and retaining the surfaces in contact until the surfaces are joined together while the composite cures (column 4, lines 48-58).

The reference is silent as to the first and second glass being phosphate-based glass. However, the reference teaches that the glass can be selected from a variety of materials, including window glass (column 3, lines 33-36).

It is known in the laminated glass art to form a window by laminating two phosphate-based glass substrates via an adhesive interlayer where the use of phosphate-based window glass in place of prior art window glass produces a window that exhibits superior anti-misting properties and durability to water, as taught by Lewis (abstract; column 1, lines 34-38; column 2, lines 65-66; column 3, lines 10-14; column 8, lines 59-61; column 8, line 68 – column 9, line 2).

Therefore, since von Bonin is not limited to a particular type of window glass, it would have been obvious to use phosphate-based window glass in the laminate of von Bonin because

Art Unit: 1733

such window glass is known in the laminated glass art for producing a window that exhibits superior anti-misting properties and durability to water, as taught by Lewis.

Alternatively, it would have been obvious to use the phosphorous compound containing solution of von Bonin to bond the phosphate-based glass substrates of Lewis because one reading Lewis as a whole would have appreciated that the reference is not concerned with a particular adhesive for bonding the glass substrates and using the adhesive solution of von Bonin would impart a fire protection action to the laminated glass window (see abstract and column 2, lines 36-50 of von Bonin).

Regarding claim 32, von Bonin teaches such (column 4, lines 55-57).

Regarding claim 34, von Bonin teaches such (column 4, lines 55-57).

Regarding claims 35 and 37, the acts of grinding and/or polishing and/or cleaning a surface before applying a bonding agent thereto and/or bonding the surface to another surface is well known and conventional in the art of laminating a variety of surfaces, including glass, where such processing steps improve the adherence of the bonding agent and/or other surface to the polished or ground surface. Therefore, it would have been obvious to grind and/or polish and/or clean the glass surfaces of von Bonin or Lewis because such processing steps are notoriously well known and conventional in the art for improving the adherence of the bonding agent and/or other surface to the polished or ground surface.

Regarding claim 36, selection of particular surface dimensions for the surface feature created by the polishing or grinding would have been within purview of the skilled artisan.

Regarding claim 38, von Bonin teaches such (column 4, lines 55-57).

Art Unit: 1733

Regarding claim 39, it would have been obvious to the skilled artisan to gradually raise the temperature because this prevents rapid heating, which can result in air/bubble formation between the layers.

Regarding claim 47, von Bonin teaches such (column 1, lines 55-63).

12. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over von Bonin and Lewis, or alternatively, Lewis and von Bonin as applied to claim 31 above, and further in view of Hentzelt et al. (US 4173668, of record) and/or Balduin et al. (WO 98/42540 – see US 6280547 for translation).

Regarding claim 33, von Bonin and Lewis are silent as to applying vacuum while the composite cures. It is known in the laminated glass art to bond two glass layers via an interlayer where vacuum is applied during heating and pressing of the laminate, as taught by Hentzelt (Figure 4; column 1, lines 6-8; column 6, lines 9-20; column 7, lines 55-56; column 8, lines 43-50; claim 23) and/or Balduin (abstract).

Therefore, it would have been obvious to the skilled artisan at the time of the invention to apply vacuum to the composite of von Bonin or Lewis while applying the heat and pressure that promotes curing of the phosphate solution because such is known in the art, as taught by Hentzelt and/or Balduin, where this removes any air trapped between the layers.

13. Claims 31-33 and 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ammons et al. (US 3965057) in view of Lewis, or alternatively, Lewis in view of Ammons et al.

With respect to claim 31, Ammons is directed to a process for making a phosphate-based glass composite (abstract; column 2, lines 40-53). The reference teaches providing a first glass having a first surface and a second glass having a second surface (column 19, lines 54-55),

Art Unit: 1733

processing the first and second surfaces to provide a bonding surface, providing an adhesive in the form of an aqueous solution containing a phosphorous compound (column 1, lines 40-53), applying the solution to at least one of the first and second surfaces (column 16, lines 30-32; column 17, lines 19-30), placing the surfaces into contact with each other, and retaining the surfaces in contact until the surfaces are joined together while the composite cures (column 17, line 19 – column 18, line 43).

The reference is silent as to the first and second glass being phosphate-based glass. However, the reference teaches that any type of glass can be used to make the composite, which can be used as a vehicle or architectural window (column 16, lines 12-14 and 27-28; column 18, lines 29-32 and 42-43).

It is known in the laminated glass art to form a vehicle window by laminating two phosphate-based glass substrates via an adhesive interlayer where the use of phosphate-based window glass in place of prior art window glass produces a window that exhibits superior anti-misting properties and durability to water, as taught by Lewis (abstract; column 1, lines 34-38; column 2, lines 65-66; column 3, lines 10-14; column 8, lines 59-61; column 8, line 68 – column 9, line 2).

Therefore, since Ammons is not limited to a particular type of window glass, it would have been obvious to use phosphate-based window glass in the laminate of Ammons because such window glass is known in the laminated glass art for producing a window that exhibits superior anti-misting properties and durability to water, as taught by Lewis.

Alternatively, it would have been obvious to use the phosphorous compound containing solution of Ammons to bond the phosphate-based glass substrates of Lewis because one reading



Art Unit: 1733

Lewis as a whole would have appreciated that the reference is not concerned with a particular adhesive for bonding the glass substrates and using the adhesive solution of Ammons would improve penetration resistance in the glass laminate (see abstract and column 2, lines 40-53 of Ammons).

Regarding claim 32, Ammons teaches such (column 16, line 30 – column 18, line 43).

Regarding claim 33, Ammons teaches such (column 16, line 30 – column 18, line 43; column 23, lines 10-16).

Regarding claims 35 and 37, the acts of grinding and/or polishing and/or cleaning a surface before applying a bonding agent thereto and/or bonding the surface to another surface is well known and conventional in the art of laminating a variety of surfaces, including glass, where such processing steps improve the adherence of the bonding agent and/or other surface to the polished or ground surface. Therefore, it would have been obvious to grind and/or polish and/or clean the glass surfaces of Ammons or Lewis because such processing steps are notoriously well known and conventional in the art for improving the adherence of the bonding agent and/or other surface to the polished or ground surface.

Regarding claim 36, selection of particular surface dimensions for the surface feature created by the polishing or grinding would have been within purview of the skilled artisan.

Regarding claim 38, Ammons teaches such (column 16, line 30 – column 18, line 43; column 23, lines 10-16).

Regarding claim 39, Ammons teaches such (column 16, line 30 – column 18, line 43; column 23, lines 10-16).

### ***Double Patenting***

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 31-39 and 47 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19-30 and 38 of U.S. Patent No. 6,652,972 (of record) in view of von Bonin et al. and/or Sugahara et al., as set forth in paragraph 15 of the previous action.

### ***Response to Arguments***

16. Applicant's arguments with respect to claim 31 have been considered but are moot in view of the new ground(s) of rejection.

17. It is noted that Applicant did not challenge the conventional statements made in the previous action with respect to claims 35-37 and 39 and therefore Applicant has acquiesced.

### ***Conclusion***

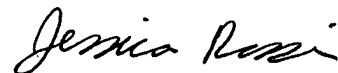
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

Art Unit: 1733

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**JESSICA ROSSI  
PRIMARY EXAMINER**

A handwritten signature in cursive script that reads "Jessica Rossi".